

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A force sensing element comprising:

a gauge portion which is formed of an n-type semiconductor substrate whose (100)-face serves as a main face, a p-type semiconductor substrate whose (110)-face serves as a main face, or a p-type semiconductor substrate whose (111)-face serves as a main face and which is pressed in a thickness direction of the semiconductor substrate upon receiving a force; and

a plurality of electrodes which are electrically connected to the gauge portion such that a current path ~~and an electric output voltage path~~ extending in a direction corresponding to the thickness direction of the semiconductor substrate is formed in the gauge portion.

2. (Original) The force sensing element according to claim 1, wherein

the current path is so confined as to be formed in a certain part of the gauge portion.

3. (Currently Amended) A force sensing element comprising:

a semiconductor substrate;

a gauge portion which is formed on one main face of the semiconductor substrate and which is pressed upon receiving a force; and

a plurality of electrodes which are electrically connected to the gauge portion such that a current path ~~and an electric output voltage path~~ extending in a direction corresponding to a thickness direction of the semiconductor substrate is formed in the gauge portion,

wherein a force is applied along the current path in the gauge portion.

4. (Original) The force sensing element according to claim 3, wherein
a center of a region receiving a force of the gauge portion is located at a center
of a region to which the force is applied.

5. (Original) The force sensing element according to claim 4, wherein
the gauge portion is formed such that the current path is formed in a crystal
direction which exhibits a high sensitivity for a transmitted force.

6. (Original) The force sensing element according to claim 3, wherein
the gauge portion is formed such that the current path is formed in a crystal
direction which exhibits a high sensitivity for a transmitted force.

7. (Original) The force sensing element according to claim 3, wherein
the electrodes include a first electrode which is electrically connected to the
gauge portion and a second electrode which is so formed on the other face of the
semiconductor substrate as to face the first electrode.

8. (Currently Amended) A force sensing element comprising:
a semiconductor substrate;
a gauge portion which is formed on one main face of the semiconductor
substrate and which is pressed upon receiving a force;
a plurality of electrodes which are electrically connected to the gauge portion
such that a current path and an electric output voltage path extending in a direction
corresponding to a thickness direction of the semiconductor substrate is formed in the gauge
portion; and

a force transmission block which presses the gauge portion along the current
path upon receiving a ~~force~~ force.

wherein the gauge portion has a piezoresistance effect.

9. (Original) The force sensing element according to claim 8, wherein

a center of a region receiving a force of the gauge portion is located at a center of a region to which a force transmitted from the force transmission block is applied.

10. (Original) The force sensing element according to claim 9, further comprising:
a force transmission body support portion which is disposed symmetrically with respect to the gauge portion so as to support the force transmission block.

11. (Original) The force sensing element according to claim 9, wherein
the gauge portion is formed such that the current path is formed in a crystal direction which exhibits a high sensitivity for a transmitted force.

12. (Original) The force sensing element according to claim 8, wherein
the gauge portion is formed such that the current path is formed in a crystal direction which exhibits a high sensitivity for a transmitted force.

13. (Original) The force sensing element according to claim 8, wherein
the electrodes include a first electrode which is electrically connected to the gauge portion and a second electrode which is so formed on the other face of the semiconductor substrate as to face the first electrode.

14. (Currently Amended) A force sensing element comprising:
a first semiconductor substrate;
a gauge portion which is formed on one main face of the first semiconductor substrate and which is pressed upon receiving a force;
a second semiconductor substrate which is joined on the side of one main face thereof to the gauge portion of the first semiconductor substrate;
a first electrode which is formed on the first semiconductor substrate; and
a second electrode which is formed on the second semiconductor substrate,

wherein a current path, which extends in the same direction as a force is applied to the gauge portion, is formed of the first electrode and the second electrode, and

~~wherein gauge portion has a piezoresistance effect.~~

15. (Original) The force sensing element according to claim 14, wherein the first electrode is formed on at least one of the other main face and a lateral face of the first semiconductor substrate, and the second electrode is formed on at least one of the other main face and a lateral face of the second semiconductor substrate.